

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
WO 2005/014700 A1

(51) International Patent Classification<sup>7</sup>: C08J 5/22,  
G01N 19/10, B05D 5/12 [KR/KR]; 314-902 LG3cha APT., Sungbok-ri, Suji-eub,  
Yongin-si, Kyunki-do 449-844 (KR).

(21) International Application Number: PCT/KR2004/001943

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data: 10-2003-0055604 12 August 2003 (12.08.2003) KR

(71) Applicant (for all designated States except US): Haeun  
Chemtec Co., Ltd. [KR/KR]; 1124, Shingil-dong,  
Ansan-si, Kyungki-do 425-839 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CHUNG, Kwang  
Choon [KR/KR]; 9-711 Gaepo4Woolsung APT., Do-  
gok-dong, Kangnam-gu, Seoul 135-270 (KR). GONG,  
Myoung Seon [KR/KR]; 904 Hyundai4 APT., Ilwon-dong,  
Kangnam-gu, Seoul 135-230 (KR). SHIM, Jae Joon

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

WO 2005/014700 A1

(54) Title: THE POLYELECTROLYTE COMPOSITION FOR HUMIDITY SENSER, POLYELECTROLYTE INK AND PREPA-  
RATION METHOD OF POLYELECTROLYTE MEMBRANE FOR SENSOR BY INKJET PRINTING

(57) Abstract: This invention is relating to the polyelectrolyte composition for humidity sensor, polyelectrolyte ink and the preparation method of polyelectrolyte membrane for humidity sensor by inkjet printing. The polyelectrolyte composition according to this invention is composed of polyelectrolyte, crosslinking agent and organic solvent comprising a single component or in the form of a mixture of two or more solvents such as alcohols. And an ink manufactured from above polyelectrolyte composition, is manufactured by adding to organic solvents such as polyhydric alcohols ensuring the solution fluidity suitable for the head of inkjet printer, high-boiling humectant preventing drying of ink and surfactant. This invention is to provide polyelectrolyte composition and polyelectrolyte ink composition suitable for humidity sensor, and the preparation method for reliable humidity sensor with uniform thickness through inkjet printing.